From:	Jay Field
To:	Eric Blischke/R10/USEPA/US@EPA
Subject:	Re: LRM
Date:	10/03/2010 10:56 AM
Attachments:	ph_pmax75_101003.xls ph_pmax50_75_101003.xls ph_pmax50_101003.xls

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Eric,
these files aren't exactly what you asked for, but they show the chemicals that set the pmax value, the frequency that other chemicals with p>0.75 or p>0.5 or (p>0.5 and p<=0.75) as well as the average number/sample. these may be a little cryptic, so let me know if you need additional info. I'll be in the office all week.

Jay

ph_pmax75_101003.xls: all samples with pmax>0.75
ph_pmax50_75_101003.xls all samples with pmax>0.50 and pmax<=0.75
ph_pmax50_101003.xls all samples with pmax>0.50

Blischke.Eric@epamail.epa.gov wrote:

> I don't necessarily put a lot of faith any individual chemical.
> However, the majority of the Pmax exceedances are for only one
> chemical.
>
> For Pmax > 0.5: 260 stations with 1 chemical; 143 stations with 2
> or
> more chemicals
> For Pmax > 0.75; 129 stations with 1 chemical; 60 stations with 2
> or
> more chemicals.
>
> And the areas with only one chemical, seem to be marginal in terms
> of
> benthic risk based on visual comparison to the bioassay results.
>
> One of the challenges that we are facing is the development of
> cleanup
> numbers protective of the benthic community. One approach is to
> make
> this determination based on bioassays. However, that is
> problematic
> from the standpoint of confirmation sampling and evaluating the
> vertical
> extent of contamination. Another approach is to establish cleanup
> numbers based on a predictive model that integrates multiple
> chemicals -
> e.g., Pmax > 0.5 or 0.75 or perhaps a MQ > 0.6 or 0.7. If we go
> the
> Pmax approach, I would be very leary of basing this decision on
> stations
> where a single chemical is predicting toxicity. I think that the
> maps
> (attached) that show Pmax => 0.5 or 0.75 for 2 or more chemicals
> do a
> pretty good job of lining up with the sediment bioassay hits.
>
> Is it possible to perform the following reliability analysis:
>
> Percent of stations with more than 2 Pmax exceedances (look at
> both the
> 0.75 and 0.5 thresholds) divided by the number of stations with
> level 2
> or level 3 hits?
> Percent of stations with one or fewer Pmax exceedances (again,

look at
both the 0.75 and 0.5 thresholds) divided by the number of
stations with
level 0 or level 1 hits?
Would this be difficult? Would this be informative?

This is something that I could probably have Margaret do.

Eric

(See attached file:
Benthic_LRM_Results_092710_NumProbToxGT50.pdf)(See
attached file: Benthic_LRM_Results_092710_NumProbToxGT75.pdf)

From: Jay Field <Jay.Field@noaa.gov>

To: Eric Blischke/R10/USEPA/US@EPA

Date: 10/01/2010 03:00 PM

Subject: Re: LRM

Eric,
I don't put a lot of faith in any individual chemical--they're all
indicators. Diesel/carbazole appear to be reliable. I would tend
to
have less confidence in chromium and mercury, but I will look at
this
over the weekend.
Jay

Blischke.Eric@epamail.epa.gov wrote:

> Jay, following Wednesday's meeting, I spent some time
> going through

the

> various LOEs presented on the LWG's maps and overlaying
> the LRM Pmax
> results. Pmax exceedances of 0.5 or 0.75 outside the
> LWG benthic

AOPCs

> generally focused on the following chemicals:
>
> Phenol
> Ammonia
> Delta-HCH
> 1-Methyl naphthalene
> Mercury
> Chromium
> Carbazole
> Diesel
>
> Is there anything I should know about the reliability of
> these

chemicals

for predicting toxicity?

Eric

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